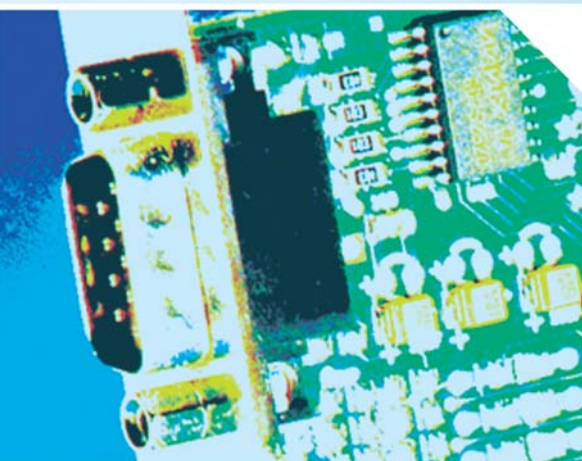




# UC-253 & UC-734 UNIVERSAL DUAL RS232

SERIAL CARDS ENGINEERED TO EXCEED EXPECTATIONS



## Features

- 2 Port RS232
- Universal PCI
- 128 Byte FIFOs with user definable trigger level
- Up to 115,200 baud
- Standard Profile and Low Profile Options
- Drivers for all popular operating systems
- Sample Programs, Test & Terminal software - all with source code
- Lifetime Support and Lifetime Warranty

[Click on each feature to find similar products](#)

## Options



Low Profile: UC-253

Standard Profile:  
UC-734



For Optional printer port see: UC-257  
For Higher baud rates see: UC-607 & UC-302

## Description

Universal PCI card provides 2 industry standard 9 pin RS232 serial COM ports in a single PCI slot.

Available as a standard Profile or Low Profile card. Low Profile is the industry standard small form factor design for PCI.

Universal PCI is fully compatible with both 3.3Volt and 5Volt PCI slots; protecting your investment into the future.

Now with Brainboxes Lifetime Warranty and Lifetime Support!

## Software

Microsoft signed drivers (easy installation & robust operation) for:

- o Windows Server 2003 x32 bit & x64 bit Editions
- o Windows XP x32 bit & x64 bit Editions
- o Windows 2000.

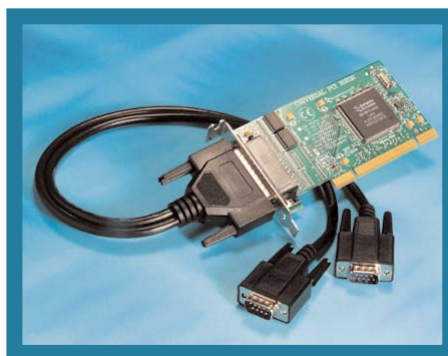


Fully tested drivers also included for:

- o Windows Me, Windows 98 & 95, Windows NT.

As well as: full product documentation, a thorough troubleshooting guide and terminal software. Detailed sample source code for all popular programming languages.

Need support for other operating systems? Please telephone or email. Find out about Brainboxes excellent driver configurability: [Click Here](#)



## ORDER

### Description

UNIVERSAL LOW PROFILE DUAL RS232  
UNIVERSAL DUAL RS232

### Code

UC-253  
UC-734





# UNIVERSAL DUAL RS232

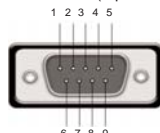
## Full Specification

Product Code UC-257

### Serial Port

DCD	Pin 1
RXD	Pin 2
TXD	Pin 3
DTR	Pin 4
GND	Pin 5
DSR	Pin 6
RTS	Pin 7
CTS	Pin 8
RI	Pin 9

RS232 Pinout (9 pin Male)



Ports  
 Connector  
 UART type  
 FIFO size  
 Powered Output  
 Transmitted Signal Strength  
 Operating Distance

2 Port RS232  
 44 WAY D TO: 2 x DB9 (9 Pin Male)  
 16950 UART inside Brainboxes LYNX BB16PCI958  
 128 Byte with user definable trigger level  
 No (for powered output see Universal Powered range (UP))  
 +/- 12 Volts open circuit RS232 Standard  
 100ft (30metres) RS232 Standard

### Serial Port Settings

Baud Rate (bits per second)  
 Data Bits  
 Parity  
 Stop Bits  
 Flow Control  
 IRQs  
 Connection Schemes

up to 115,200  
 5,6,7 or 8  
 Odd, Even, None, Mark or Space  
 1, 1.5 or 2  
 CTS/RTS DTR/DSR  
 Plug and Play - Shared interrupts for all ports  
 Point to Point

### General

Bracket Profile  
 PCB Layers  
 Power  
 Weight  
 Size

Standard Profile (UC- 734) Low Profile (UC- 253)  
 4  
 260mA @ 5V  
 30mA @ 12V  
 0.079Kg  
 65 x 120 mm

### Interface

BUS Compatibility  
 OS Compatibility  
 PCI Compliance

32/64 bit Universal (3.3V or 5V) PCI or PCI-X  
 Windows 98/ NT4/ 2000/ XP/ Server 2003  
 Windows XP x64 bit Edition / Windows Server 2003 x64 bit  
 Linux  
 Version 3.0

### Microsoft Approvals

Windows Server 2003 Editions, Windows XP Home,  
 Windows XP Professional

### Approvals & Accreditations



UL, EMC: CE, FCC, PCI Power Management 1.1 Compliant,  
 PCI 3.0 Compliant

### Box Contents

Installation CD including manual, Microsoft signed drivers,  
 utilities and sample programs with source code  
 Universal Dual RS232  
 Installation Guide

### OEM option

Available for bulk buy OEM

### Product Support

Lifetime Email and Phone Support  
 from fully qualified, friendly staff 40 hours a week

### Warranty

Lifetime

### Made In



Manufactured in the UK by Brainboxes  
 Winner 2005 European Electronics Industry Awards  
 "Manufacturer of the Year"

### Customisable

Brainboxes operate a "Perfect Fit Custom Design"  
 policy for volume users More Info: [CLICK HERE](#)





# UNIVERSAL DUAL RS232

## Glossary: Product Features Explained

### Universal PCI

Universal products allow compatibility with both 3.3 Volt and 5 Volt PCI systems. This ensures that Brainboxes universal card range is backward compatible with older systems and works with all new PCI systems.

More info on 'Universal' products: [Click Here](#)

### Low Profile

Low-Profile PCI is a new PCI card standard for space-constrained system designs. The new form factors maintain the same electricals, PC signals and software drivers as standard PCI v3.0 expansion cards. They are also mechanically similar; however, Low-Profile PCI is an additional form factor that defines a shorter raw card and new mounting bracket for card retention.

### Microsoft Logo Approval

The majority of Brainboxes products, including this one, have been approved by Microsoft as a fully tested and compatible product with popular Microsoft Operating Systems. For the full list of Brainboxes approved products see the **Microsoft website**: [Click Here](#)

### PCI Compliant

All Brainboxes Universal PCI cards are fully PCI version 3.0 compliant, in accordance with the PCI-Special Interest Group (PCI-SIG).

### Large FIFO

FIFO means First In First Out, a FIFO is memory space on the Brainboxes card. A larger FIFO allows more memory space for buffering data, so calls to the computer processor are less frequent. This significantly increases data throughput and improves CPU availability for other applications.

More info: [Click Here](#)

### 4 Layer PCB

Printed Circuit Board with 4 layers of circuitry complies with the PCI SIG best practice guideline and ensures a more reliable card. 1 layer is for power and 1 for ground which leads to greater EMC shielding for the signals. This ultimately gives greater signal integrity.

### Surface Mount Components

Most components on a Brainboxes card are placed by a surface mount machine. The surface mount machine allows for highly accurate and fast production of Brainboxes cards. Orders can be met quickly, reliably and with outstanding quality.

### Capacitors

As required by the PCI-SIG all Brainboxes cards have capacitors connected to all the power pins on the PCI connector, near to the connector. This ensures that the electrical power rails on the Brainboxes card stay at the right voltage, regardless of the power demands placed on them. This helps data signals keep their integrity.





# UNIVERSAL DUAL RS232

## Brainboxes' Service

*"Brainboxes offers free lifetime support for ALL customers."*

We aim to provide industry leading support for our customers. Our highly trained and helpful support engineers sit and work closely with the product designers, developers, and testers to ensure an in-depth knowledge of the products. Support can be found by emailing [support@brainboxes.com](mailto:support@brainboxes.com) or calling: +44 (0)151 220 2500 during UK office hours.

Support website: [www.brainboxes.com/support/index.asp](http://www.brainboxes.com/support/index.asp)



*"Brainboxes' passionately believes in the quality of its manufacturing process and will reflect this by offering a Lifetime Warranty on ALL of its universal serial card range."*

Brainboxes is pleased to be able to extend a new Lifetime Warranty for all universal serial cards products. We have introduced this based on our exceptional manufacturing and design quality and the company ethos of kaizen.



## Brainboxes' Kaizen

*"Brainboxes constantly strives to achieve higher standards for the benefit of customers."*

'Kaizen' is a Japanese term meaning 'continuous improvement'. Kaizen has been implemented throughout Brainboxes, resulting in significant improvements to our products and our customer service, as illustrated by the development of our own custom ASIC "LYNX" and our new lifetime warranty. As part of this ongoing process, in 2004 we embarked on 'Lean' and '6 Sigma' programs which are successfully increasing productivity and efficiency in all areas of the company. **More Info:** [Click Here](#)



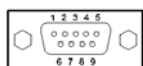
## Brainboxes' LYNX

We developed the Brainboxes LYNX (BB16PCI958) to enable us to drive product performance, and supply customer needs for Universal PCI products (3.3V and 5V compatible). By reducing the part count and incorporating several components into one chip (FIFO, UARTs, PCI interface), we have also increased board reliability. The LYNX also features thorough backwards compatibility with legacy systems, tested beyond the databook for compatibility with standard TL16C550, 750 UARTs. The chip is designed so that Brainboxes products will work with all applications designed for TI UARTs. **More Info:** [Click Here](#)

## RS232 Standard

DCD	Pin 1
RXD	Pin 2
TXD	Pin 3
DTR	Pin 4
GND	Pin 5
DSR	Pin 6
RTS	Pin 7
CTS	Pin 8
RI	Pin 9

RS232 [9 Pin] Pinout



RS232 is the best known industry standard providing asynchronous serial communication using  $\pm 12$  Volt logic levels over distances up to 100 feet (30 metres). RS232 can be configured to suit all needs from 3 wire communication (using transmit, receive and ground lines only), to more complex hardware and software handshaking. **More info:** [Click Here](#)

TXD	Pin 2
RXD	Pin 3
RTS	Pin 4
CTS	Pin 5
DSR	Pin 6
GND	Pin 7
DCD	Pin 8
DTR	Pin 20
RI	Pin 22

RS232 [25 Pin] Pinout

